Amendments to the Specification:

Please replace the paragraph on page 3, line 27 - page 4, line 9, with the following amended paragraph:

In addition, in the lithium secondary battery of the present invention, it is preferable in view of assuring safety of the battery that a relationship of $C/(w \bullet c) \leq 0.03$ is established where current capacity is C (Ah), battery weight is w (kg), and specific heat of the battery is c ~~(W/kg•°C)~~(W•sec/kg•°C). It is also preferable in view of attaining both high energy density and safety that a relationship of $0.004 \leq t/d \leq 0.04$ is established where the battery case is cylindrical, its outer diameter is d (mmφ), and its wall thickness is t (mm). Moreover, such conditions are preferably applied to a lithium secondary battery with a battery capacity of 50 Wh or more. The lithium secondary battery satisfying such conditions is suitably used as a battery for an electric vehicle or a hybrid electric vehicle. With this regard, the lithium secondary battery of the present invention preferably uses lithium-manganese oxide ($LiMn_2O_4$) as the positive active material.

B1

Please replace the paragraph on page 7, lines 10-18, with the following amended paragraph:

According to the present invention, where current capacity of the battery produced by using the aluminum battery case is C (Ah), the battery weight is w (kg), and the specific heat of the battery is c ~~(W/kg•°C)~~(W•sec/kg•°C), the battery is

B2

preferably designed such that a relationship of C/(w•c) ≤ 0.03 is established. Here, the specific heat c of battery is defined to be ~~power (W)~~ energy (W•sec) necessary for raising temperature of a battery of 1 kg by 1°C. Therefore, even if the same battery case is used in producing the battery, the battery has a different specific heat if components other than the battery case differ, while, even if the volume of the battery is the same, the battery has different specific heat depending on the material and wall thickness of the battery case, the size of internal electrode body or the like.

B2

Please replace the paragraphs on page 12, line 7 - page 13, line 5, with the following amended paragraphs:

B3

Then, specific heat was measured on example 5 which had the value of t/d of 0.02 or the wall thickness of 1 mm, which was believed to be preferable from the viewpoint of the energy density and safety in the above-mentioned test for identifying shape of battery case. The specific heat was measured by attaching a T-type thermocouple at the longitudinal center of side of battery, discharging the battery at a current of 27 A to 2.5 V in a 25°C constant temperature bath after constant current charging at 10 A and constant voltage charging at 4.1 V (6 hours in total), and measuring temperature rise of the battery. As a result, temperature rise was 6°C. Assuming that all heat generation from the battery when it is discharged is caused by internal resistance of the battery, since the internal resistance of battery was 4 mΩ, total power consumption in discharge (resistance × (current)^2 × discharging time) was 8923 W•sec. Therefore, for battery weight of 0.86 kg and temperature rise of 6°C,

the specific heat of battery was calculated as 1729 ~~W/kg•°C~~ W•sec/kg•°C.

When all energy (100 Wh) of this battery was assumed to be instantaneously discharged from the full charged state due to external short-circuiting caused by erroneous use or internal short-circuiting, since 100 Wh corresponded to 360000 W•sec (100 × 3600 seconds), when this value is divided by the weight and specific heat of the battery, the temperature rise of the battery was calculated as 242°C, and it was found that the highest temperature reached was lower than the melting point of 660°C of aluminum. Then, when the external short-circuiting test was conducted in a state where the battery was actually fully charged, the pressure release valve was actuated but there was caused no burst or firing, so that safety of the battery was confirmed to be assured.

Internal and external short-circuiting tests

Batteries having various C/(w•c) values as shown in Table 3 were produced using an aluminum battery case by noticing the parameter of C/(w•c) consisting of the battery capacity C (Ah), the battery weight w (kg), and the specific heat c of battery ~~(W/kg•°C)~~ W•sec/kg•°C calculated with the above method based on the result of the test for measuring specific heat of battery, and subjected to the nail piercing test (internal short-circuiting test) according to the SBA Guideline. Table 3 also lists the test results.